

Claims

1. Stretch of rail comprising a railway switch element (12) made from high-alloy steel, in which at least one alloy element has a content equal to at least 5% by weight, and a length of rail (14) made from medium-alloy steel, directly connected to one another by a weld without deposition of metal, characterised in that the length of rail (14) is formed from a medium-alloy low-carbon steel in which the carbon content is less than 0.55% by weight.
2. Stretch of rail as claimed in Claim 1, characterised in that the length of rail (14) is formed from a medium-alloy low-carbon steel in which the carbon content is less than 0.5% by weight.
3. Stretch of rail as claimed in Claim 1 or 2, characterised in that medium-alloy low-carbon steel forming the length of rail is a bainitic steel.
4. Stretch of rail as claimed in Claim 3, characterised in that the medium-alloy low-carbon steel is a bainitic steel without carbide.
5. Stretch of rail as claimed in any one of the preceding claims, characterised in that the medium-alloy low-carbon steel forming the length of rail has the following composition by weight:
 - 0.05% to 0.50% of carbon;
 - 0.5% to 2.5% of manganese;
 - 0.6% to 3% of silicon or aluminium;
 - 0.25% to 3.1% of chromium; and
 - 0% to 0.9% of molybdenum.
6. Stretch of rail as claimed in Claim 5, characterised in that the medium-alloy low-carbon steel forming the length of rail has a composition defined below:
 - 0.28% to 0.36% of carbon;
 - 1.40% to 1.70% of manganese;

- at most 0.03% of phosphorus;
- 0.01% to 0.03% of sulphur;
- at most 0.005% of aluminium;
- 1% to 1.40% of silicon;
- 0.40% to 0.60% of chromium;
- 0.08% to 0.20% of molybdenum;
- at most 0.04% of titanium; and
- at most 0.004% of boron.

7. Stretch of rail as claimed in any one of the preceding claims, characterised in that the railway switch element made from high-alloy steel comprises 12% to 14% by weight of manganese.